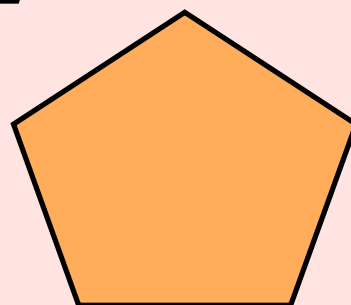
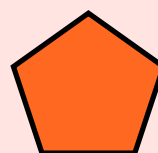
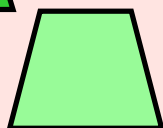
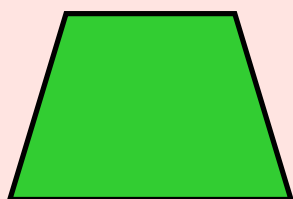
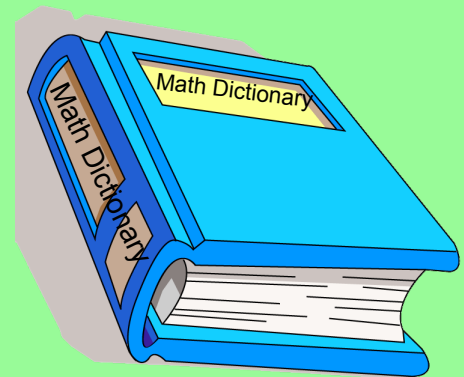


Similar Figures Day One



Add to your Math Dictionary . . .

similar - figures that are the same shape
but not equal size.



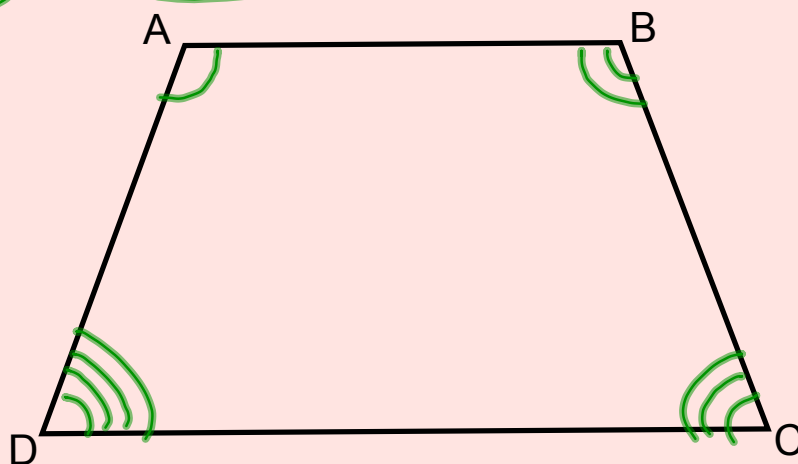
Helpful Hint!

~~AD~~ ~~BC~~

ARC
MARKS!

DC
BC

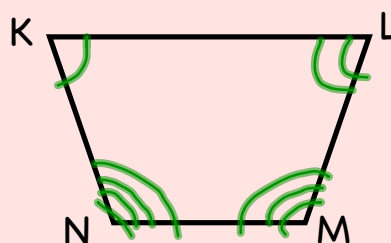
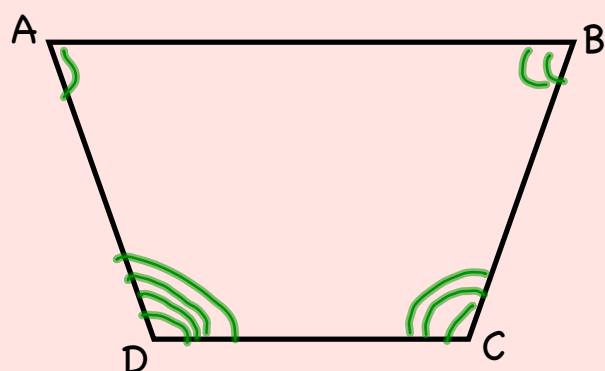
)



The name of this figure is trapezoid ABCD.

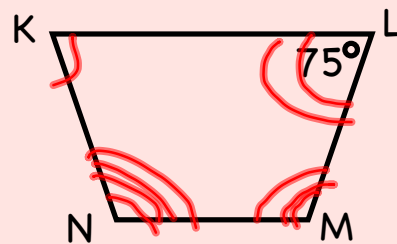
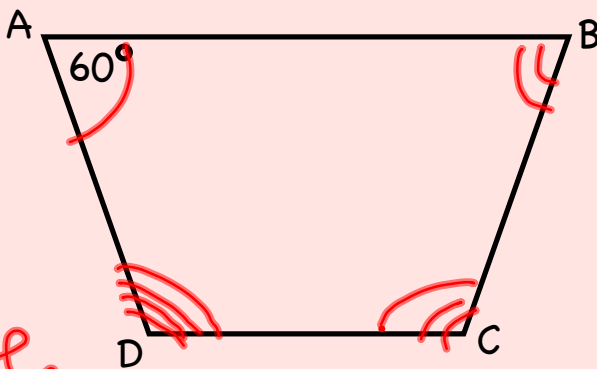
CN rig

ARC MARKS!



If two figures are similar, the _____
 _____ have the same measure.

ARC MARKS!



The
measure
↓ of

$$m\angle A = m\angle K$$

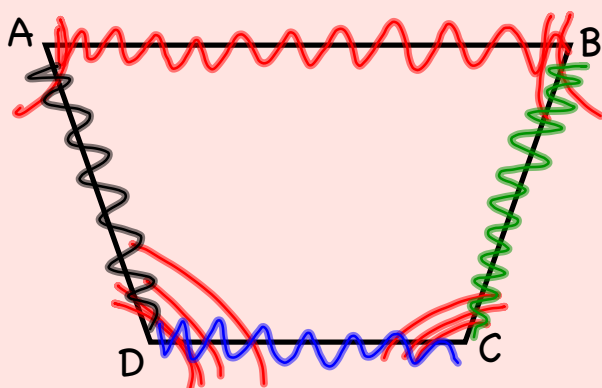
$$m\angle D = m\angle \underline{N}$$

$$\text{If } m\angle A = 60^\circ, \text{ then } m\angle K = \underline{60^\circ}$$

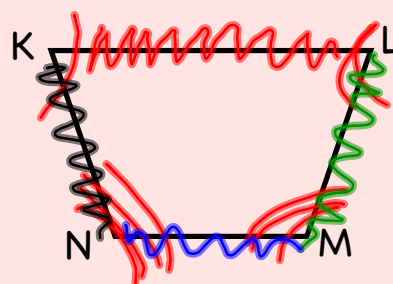
$$\text{If } m\angle L = 75^\circ, \text{ then } m\angle B = \underline{75^\circ}$$

ARC MARKS!

If two figures are similar, have lengths that are in proportion to each other.

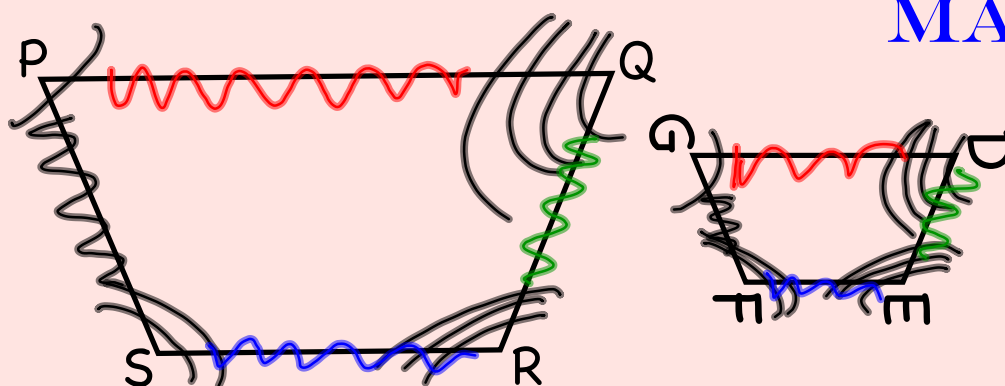


$$\frac{AB}{KL} = \frac{DC}{NM}$$



$$\frac{BC}{LM} = \frac{AD}{KN}$$

ARC
MARKS!



$$\frac{QP}{DQ} = \frac{QR}{DE}$$

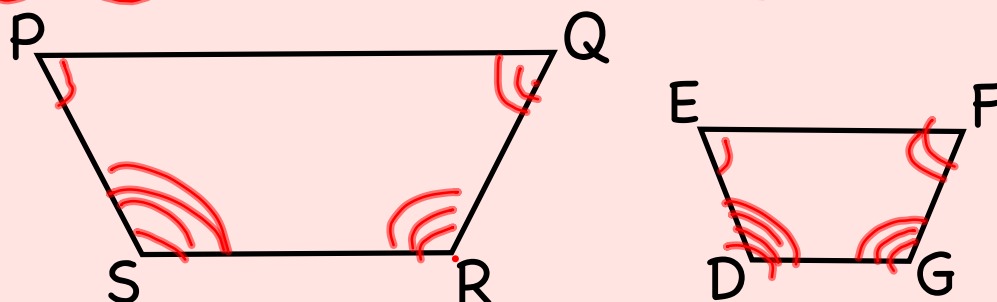
$$\frac{PS}{GF} = \frac{RS}{EF}$$

Naming similar figures

**ARC
MARKS!**

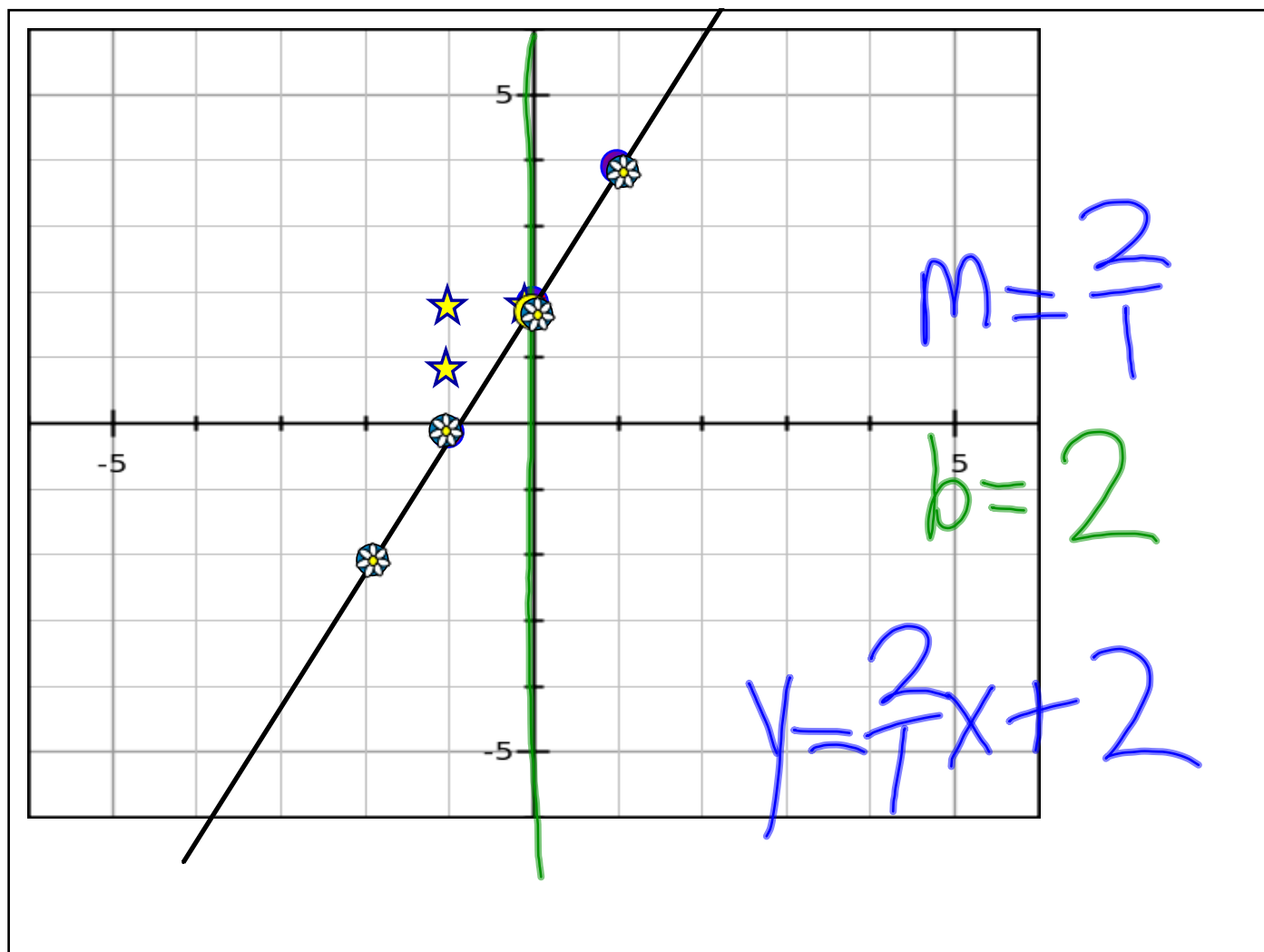
The symbol ~ means "is similar to".

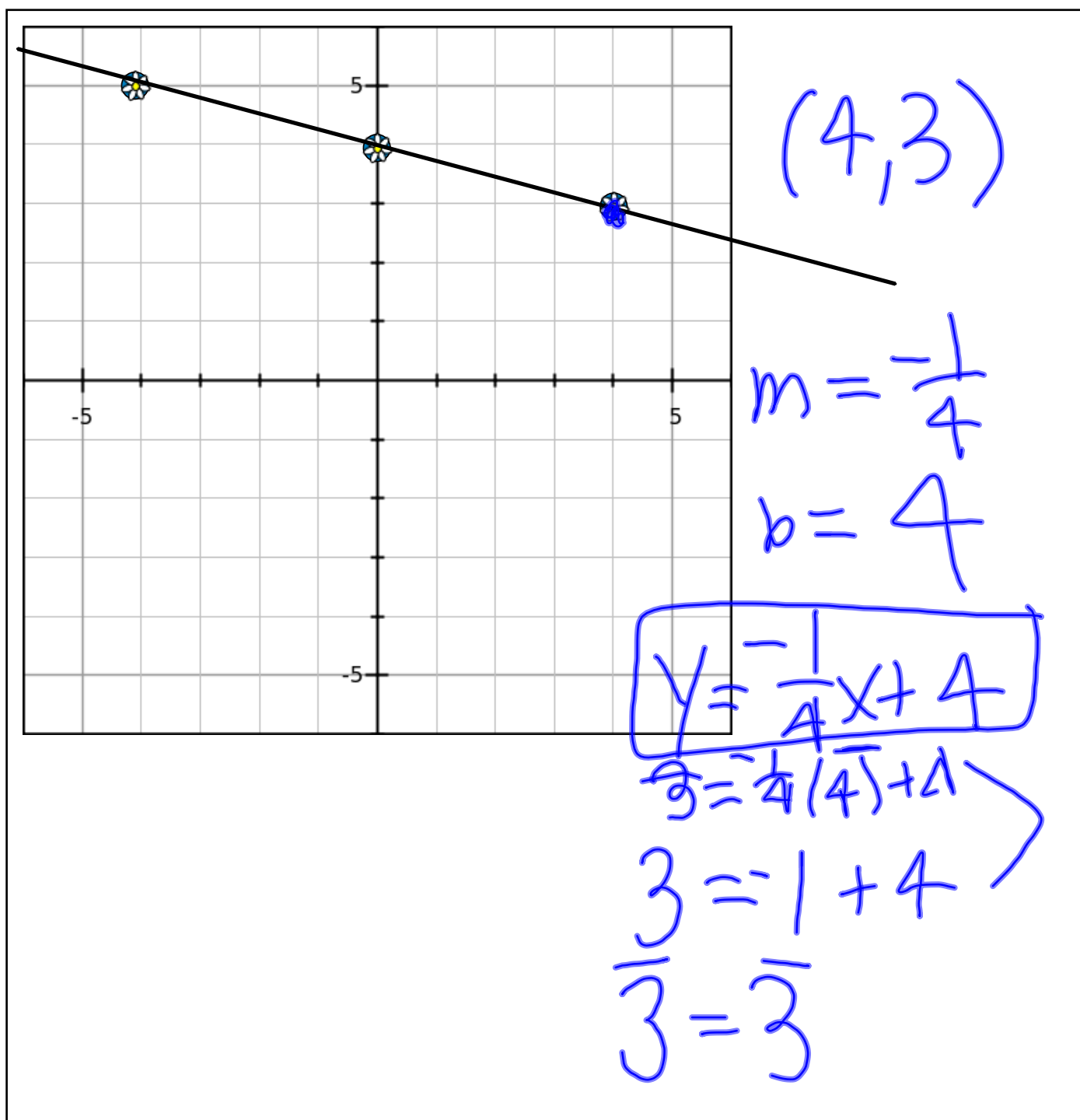
*When you name similar figures, be sure to

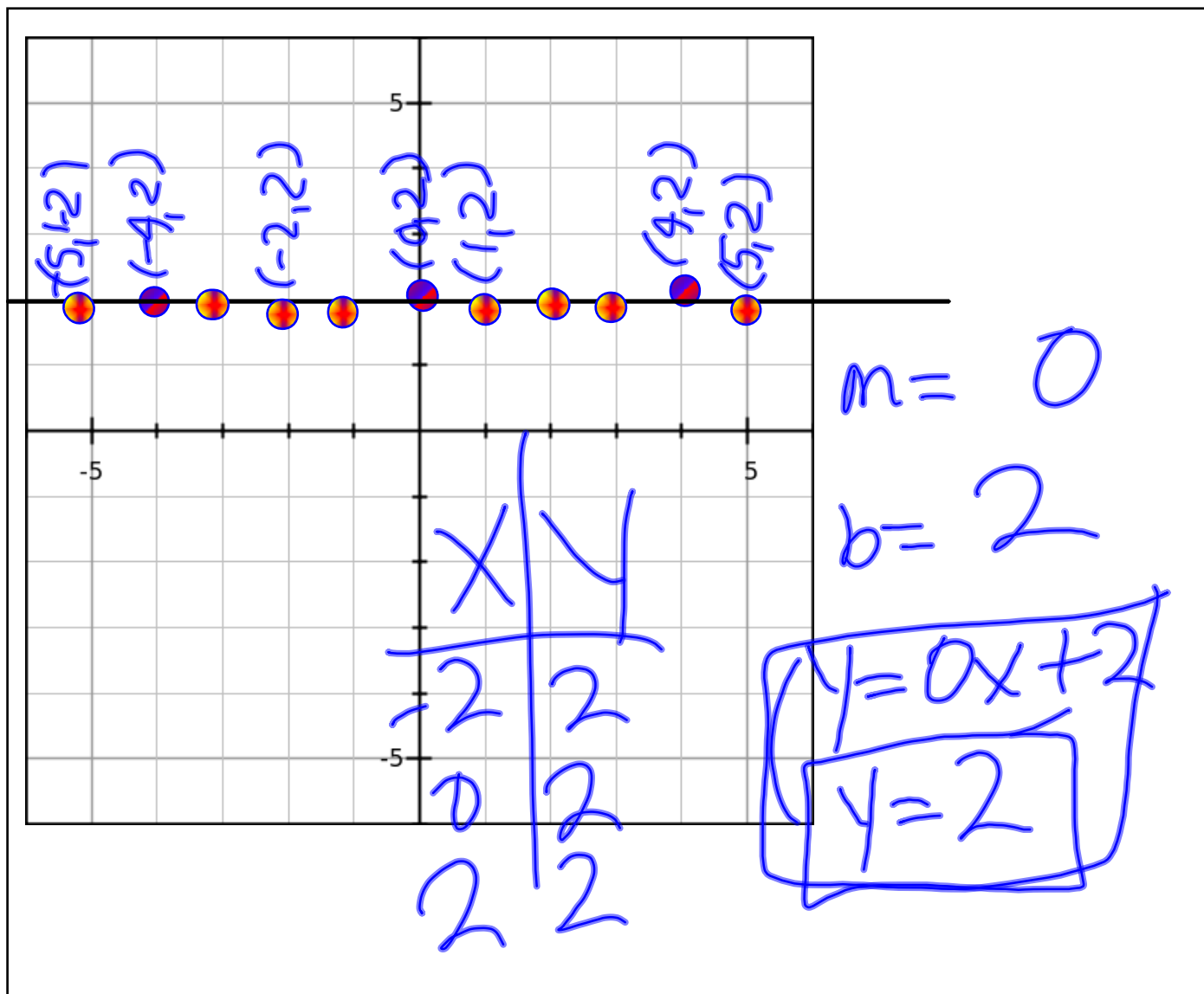


$PQRS \sim \underline{EFGD}$

$SPQR \sim DCFG$







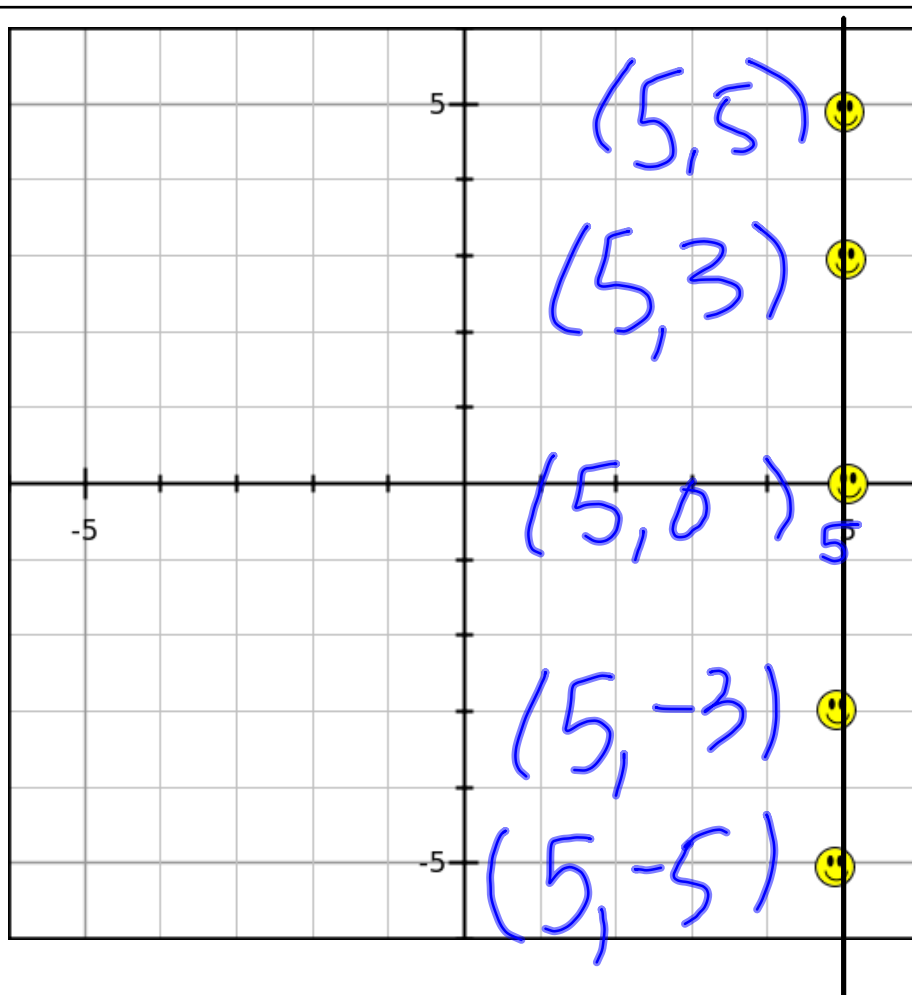
$$3\frac{9}{10} = \frac{18}{20}$$

$$+ 4\frac{3}{4} = \frac{15}{20}$$

$$7 \boxed{\frac{33}{20}}$$

$$7 + 1\frac{13}{20}$$

$$8\frac{13}{20}$$



$$m = \frac{5}{0} =$$

undefined

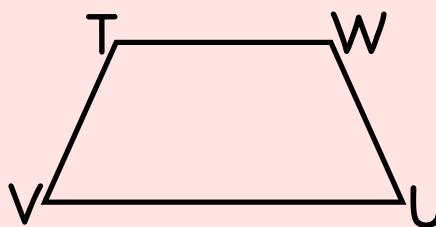
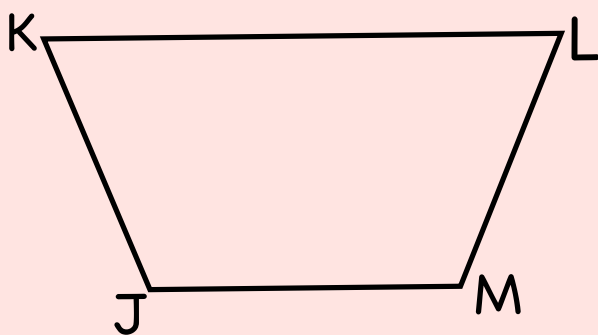
$$b =$$

None

~~$x = 5$~~

ARC MARKS!

Write a mathematical statement saying the figures are similar.



**ARC
MARKS!**

Write a mathematical statement
saying the figures are similar.



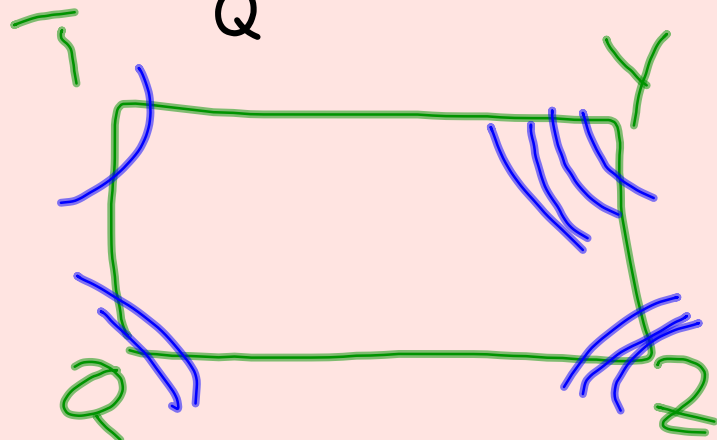
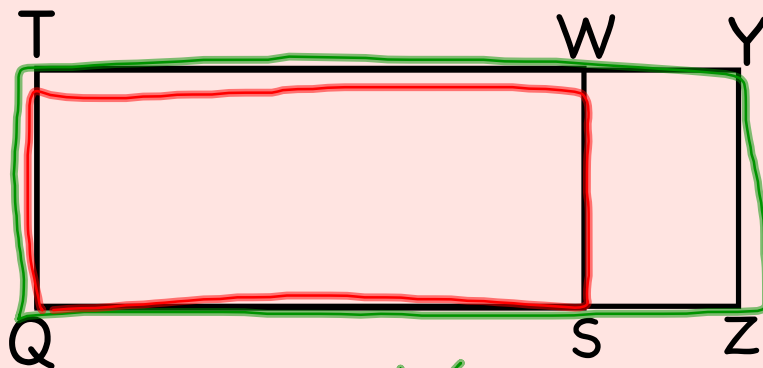
$$PMK \sim NLK$$

$$KPM \sim KNL$$

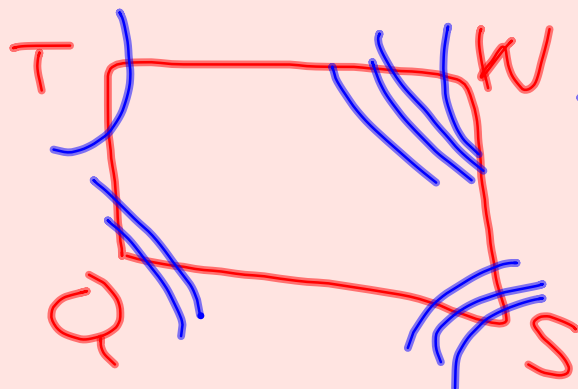
$$MPK \sim LNK$$

ARC MARKS!

Write a mathematical statement saying the figures are similar.



$TQZY \sim$
 $TQSW$



$TQZY \sim TQSW$

$TQSW \sim TQZY$

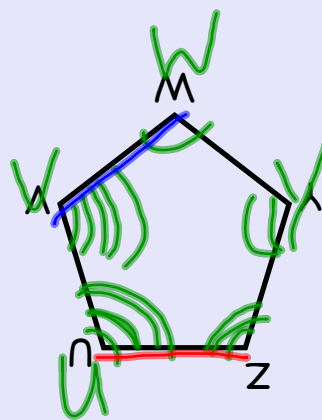
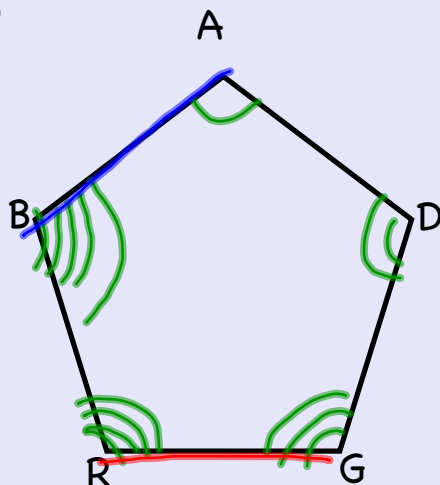
planner Time!

planner Time!

planner Time!

planner Time!

Warm Up



$$m\angle A = m\angle W$$

$$m\angle R = m\angle U$$

$$\frac{BA}{VW} = \frac{ZU}{GR}$$

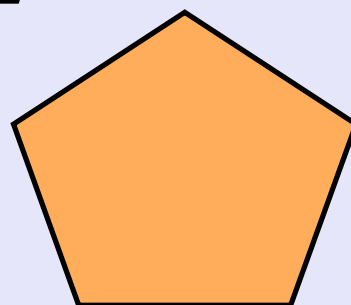
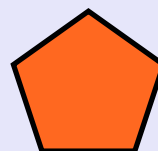
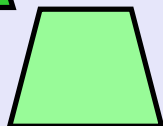
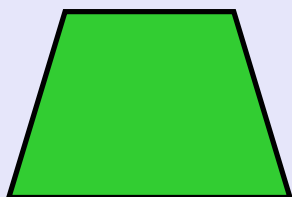
Write a mathematical statement showing these figures are similar.

$$\underline{ADGRB \sim WYZUV}$$

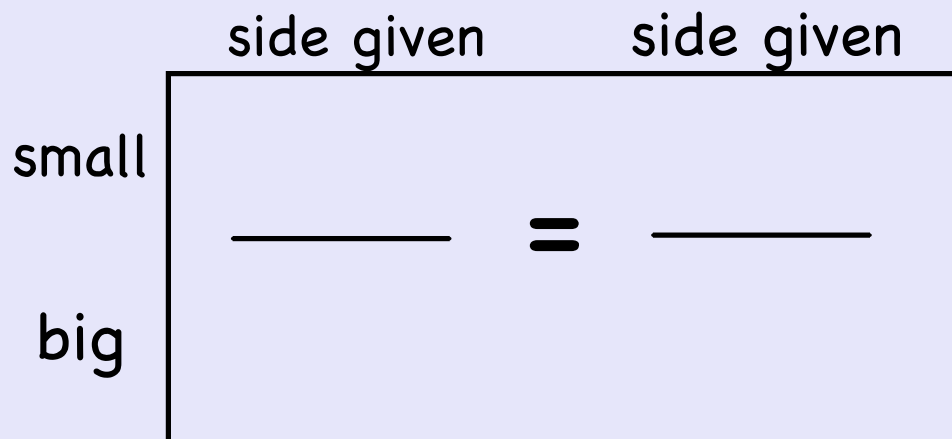
$$ABRGD \sim WVUZY$$

$$RGDAB \sim UZYWV$$

Similar Figures Day Two

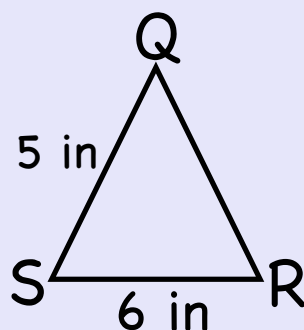
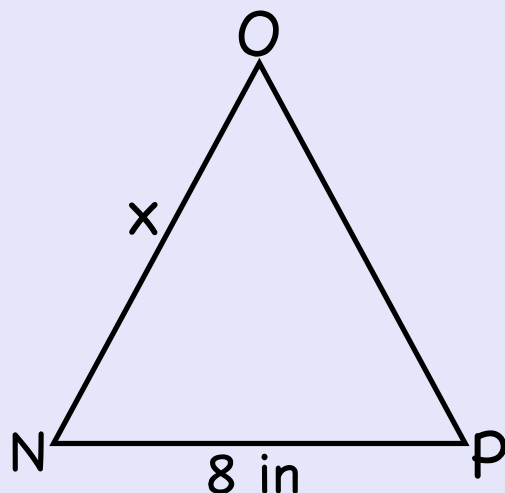


**Today we will find missing
measurements in similar figures.**



Find the missing side length.

**ARC
MARKS!**



bottom left

Small
big

$$\frac{6 \text{ in}}{8 \text{ in}} = \frac{5 \text{ in}}{x}$$

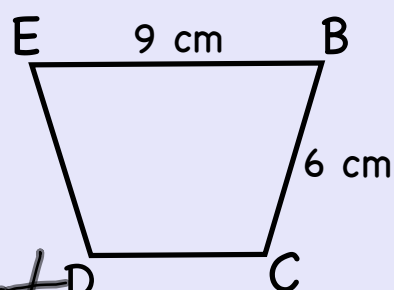
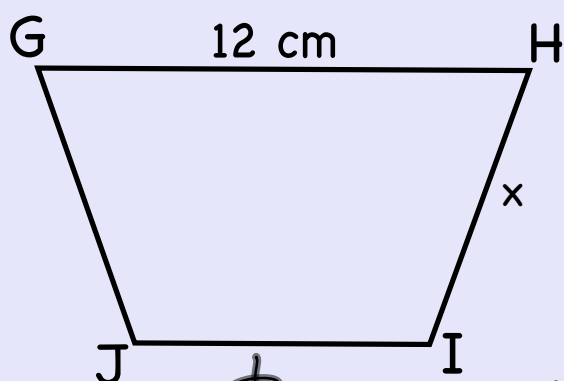
$$5 \cdot 8 = 6 \cdot x$$

$$\frac{40}{6} = \frac{6x}{6}$$

$$6.67 \text{ in} = x$$

Find the missing side length.

**ARC
MARKS!**



small
big

top right

$$\frac{9 \text{ cm}}{12 \text{ cm}} = \frac{6 \text{ cm}}{x}$$

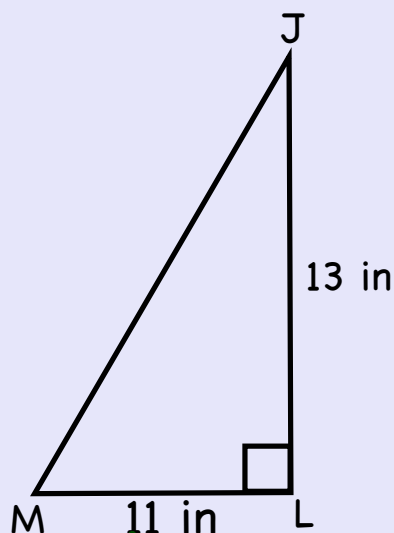
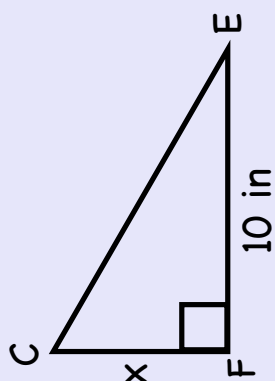
$$12 \cdot 6 = 9 \cdot x$$

$$\frac{72}{9} = \frac{9x}{9}$$

$$8 \text{ cm} = x$$

Find the missing side length.

**ARC
MARKS!**



rt

bottom

small
big

Planner Time!